

*United States Marine Corps
Command and Staff College
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068*

MASTER OF OPERATIONAL STUDIES

***TITLE: A Matter of “Contact”:
Justification for and Exploration of a Future Warfighting Philosophy***

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF OPERATIONAL STUDIES

AUTHOR: Major Kirk D. Nothelfer, USMC

AY 05-06

Mentor: LtCol Jerome Driscoll, USMC

Approved:_____

Date:_____

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 2006		2. REPORT TYPE		3. DATES COVERED 00-00-2006 to 00-00-2006	
4. TITLE AND SUBTITLE A Matter of ?Contact?: Justification for and Exploration of a Future Warfighting Philosophy				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) United States Marine Corps,School of Advanced Warfighting, Marine Corps University,2076 South Street, Marine Corps Combat Development Command,Quantico,VA,22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 38	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS SCHOOL OF ADVANCED WARFIGHTING OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

QUOTATION FROM, ABSTRACTION FROM, OR REPRODUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.

EXECUTIVE SUMMARY

Title: A Matter of “Contact”: Justification for & Exploration of a Future Warfighting Philosophy

Author: Major Kirk D. Nothelfer, United States Marine Corps

Thesis: The United States military requires a new warfighting philosophy. This philosophy should be founded upon human nature, not the nature of war, because warfighting involves more than war. This warfighting philosophy should revolve around a simple theme: *contact*.

Discussion: *Problem* – existing warfighting philosophies are incomplete because they reflect a diametric, zero-sum paradigm regarding war. Further, they are based on the flawed assumption that the essence of a military is combat victory. This cultivates a mindset that fails to grasp the inherent complexity of war as but one domain in a multidimensional political reality.

Contact – a warfighting philosophy that seeks to undermine adversaries’ will-to-compete by isolating them from their fundamental source of power: human society.

Militaries isolate adversaries by generating advantages in *social tempo*. They produce social tempo by harmonizing the temporary advantages of coercion with the enduring strengths of persuasion. This demands balance between combat efficiency and the capacity to contribute to societal vitality. A *Contact* mindset cultivates enduring indigenous, domestic, and international relationships that contribute to national interests and enhance freedom-of-action, improve operational effectiveness, and subvert adversaries’ ability to draw strength from society.

A *Contact* mindset views situations holistically. It is a grand strategic design that capitalizes on the interrelated nature of tactical operations and the evolution of militaries beyond mere instruments of coercion. It recognizes that war is but one dimension in a complex political system.

Contact is founded upon a bias for de-escalation which encourages members to seek long-term solutions to problems while cultivating relationships. It demands a comprehensive approach to operations that works to influence societies at a conscious and unconscious level by recognizing individual and societal diversity, and by addressing those basic needs that help to earn trust. It leads to the deliberate, measured application of coercion in harmony with unrestrained efforts to persuade.

Key Concepts – Contact. Basic Needs. Identity. Society. Politics. Complexity.

Key Constructs – Trinity of Politics. Continuum of Contact. De-escalation bias. Social Tempo.

Implications:

- Humanizing adversaries in order to improve situational acuity and to enhance social tempo. This will require greater emphasis on preventing/treating PTSD.
- Broader range of subjects (philosophy, psychology, sociology, economics, and systems theory).
- Military and civilian interdependence. This idea expands the concept of *jointness*. It means bottom-up injection of civilian force structure in military organizations and vice versa.
- Evolution of military professionalism. Increasing education requirements will spur longer careers. An institutional de-escalation bias will encourage broader integration as military leaders accept risk by trading combat efficiency for the decisive potential of non-combat operations.

TABLE OF CONTENTS

	<i>Page</i>
DISCLAIMER.....	ii
EXECUTIVE SUMMARY.....	iii
TABLE OF CONTENTS.....	iv
LIST OF FIGURES.....	v
INTRODUCTION: <i>A Warfighting Philosophy Based on “Contact”</i>	1
OVERVIEW: <i>The “Contact” Mindset</i>	3
ANALYSIS: <i>Core Concepts of the “Contact” Philosophy</i>	4
SYNTHESIS: <i>Gaining “Contact” with Allies, Adversaries, & the Non-Aligned</i>	16
CONCLUSION: <i>Prometheus at the Door</i>	20
BIBLIOGRAPHY.....	22

LIST OF FIGURES

	<i>Page</i>
FIGURE 1 Influences on Motivation, Will, and Behavior	5
FIGURE 2 A Trinitarian Perspective on Politics	9
FIGURE 3 Politics: Competition for & Exchange of Power	12
FIGURE 4 The Continuum of Contact.....	12

INTRODUCTION

A WARFIGHTING PHILOSOPHY BASED ON “CONTACT”

The United States military requires a new warfighting philosophy. This philosophy should be founded upon human nature, not the nature of war, because warfighting involves more than war. It must synthesize combat and non-combat operations with traditional non-military functions. *External* forces compel the most profound transformations within the United States military. These external stresses require the military to confront fundamental assumptions about war, warfighting, and a military's utility as an instrument of national power in a global society. Unfortunately, the institution lacks an appropriate worldview to synchronize the far-reaching reforms that are being imposed from outside. The first step towards a solution is to develop a coherent philosophy that redefines warfighting in the context of human politics, not merely in the context of war. This warfighting philosophy should revolve around a simple theme: *contact*.

Contact is “connection or interaction; communication.”¹ It does not refer to the physical clash of armies, but to a dynamic interaction between humans within distinct yet merging societies. Fire, maneuver, logistics, intelligence, etc. are important warfighting functions, but war like all politics is fundamentally a function of *contact*. The appeal of *contact* lies in its inherent neutrality. It focuses attention on the connection between people without attaching any qualitative or moral judgment that terms such as *competition*, *struggle*, or *conflict* convey. Life is about contact whether moral or immoral, constructive or destructive, individual or multilateral, physical or virtual. *Contact* embraces the benevolent and constructive dynamics within society

just as much as it accepts the malevolent and destructive elements. As a philosophy, it emphasizes the fact that war is a social phenomenon rooted in human contact, not in maneuver, and not in technology.²

Joint Publication 1, Joint Warfare of the Armed Forces of the United States, states “the fundamental purpose of the Armed Forces is to win the Nation’s wars. *Success in combat...is the essential goal and measure of value* [author’s emphasis] of the profession of arms in American society.”³ Success in combat is an important measure of success. However, it should not be regarded as *the* essential measure of success. As a continuation of political commerce, war is not a diametric, zero-sum competition.⁴ The US military has the capacity to support national interests by helping to prevent war, by managing its devastating effects on societies during war, and by helping to rebuild those societies that are ravaged by war. Any warfighting philosophy that fails to emphasize the social dimension of war by concentrating solely on the defeat of adversaries in combat fundamentally misses the broader political context of human contact. A more mature perspective on war and warfighting is demanded.

The purpose of this paper is to frame an alternative warfighting philosophy. It will not espouse a new form or generation of warfare. It will not provide solutions to future problems. Instead, it challenges you to look at *warfighting* differently. It provides the first step in framing a new warfighting paradigm. A warfighting philosophy rooted in the nature of man instead of the nature of war will not change facts. However, it can alter one’s interpretation of them, leading to a different understanding regarding the utility of a military in modern society. This perspective will encourage synchronization with other instruments of national power. The first order of business is to summarize the *Contact* philosophy. Following that, the central concepts can be explored in greater detail in order to frame the *Contact* mindset.

SECTION 1 – OVERVIEW

THE “CONTACT” MINDSET

Contact is a warfighting philosophy that seeks to undermine adversaries’ will-to-compete by isolating them from their fundamental source of power: human society. Militaries isolate adversaries by generating advantages in *social tempo*. They produce social tempo by harmonizing the temporary advantages of coercion with the enduring benefits of persuasion. This demands balance between combat efficiency and the capacity to contribute to societal vitality. A *Contact* mindset cultivates enduring indigenous, domestic, and international relationships that contribute to national interests and enhance freedom-of-action, improve operational effectiveness, and subvert adversaries’ ability to draw energy from society.

Contact emerges from the powerful influence exerted on free will by basic needs and unique identity. It is a grand strategic design that capitalizes on the interrelated nature of tactical operations and the evolution of militaries beyond mere instruments of coercion. It emphasizes that war is but one dimension in a complex political system. *Warfighting* necessitates a holistic approach to human politics. A military’s success is a function of how it synchronizes its efforts with those of non-military actors in order to contribute to enduring national interests and the welfare of its society. This means that a warfighting philosophy must harmonize combat operations with enduring requirements to enhance social stability.

SECTION 2 – ANALYSIS

CORE CONCEPTS OF THE “CONTACT” PHILOSOPHY

Man is neither innately good nor evil, but social.⁵ In a world of finite resources and contending ideas, humans compete with one another. However, they are genetically engineered to co-exist through cooperation.⁶ Viewed this way, life becomes a matter of contact, not just of conflict.⁷ The *Contact* philosophy emerges from the profound singularity of the individual human, therefore this is where the analysis must begin.

Point-of-Departure: The Individual and Social Nature

Mankind's nature is social. Human behavior is inextricably linked to that social nature. A person's behavior reflects the conscious exercise of free will and the subtle influence of the unconscious mind.⁸ As primary components of behavior, conscious and unconscious motivations are fed by a person's distinct identity and obligation to satisfy basic needs (Fig. 1).

Basic needs must be regarded collectively (Fig. 1).⁹ Isolating specific physiological or psychological needs overlooks their inherent interdependence. The priority of basic needs can differ depending on the person, culture, or circumstance.¹⁰ Observed behaviors typically reflect multiple motivations based on a variety of different needs.¹¹

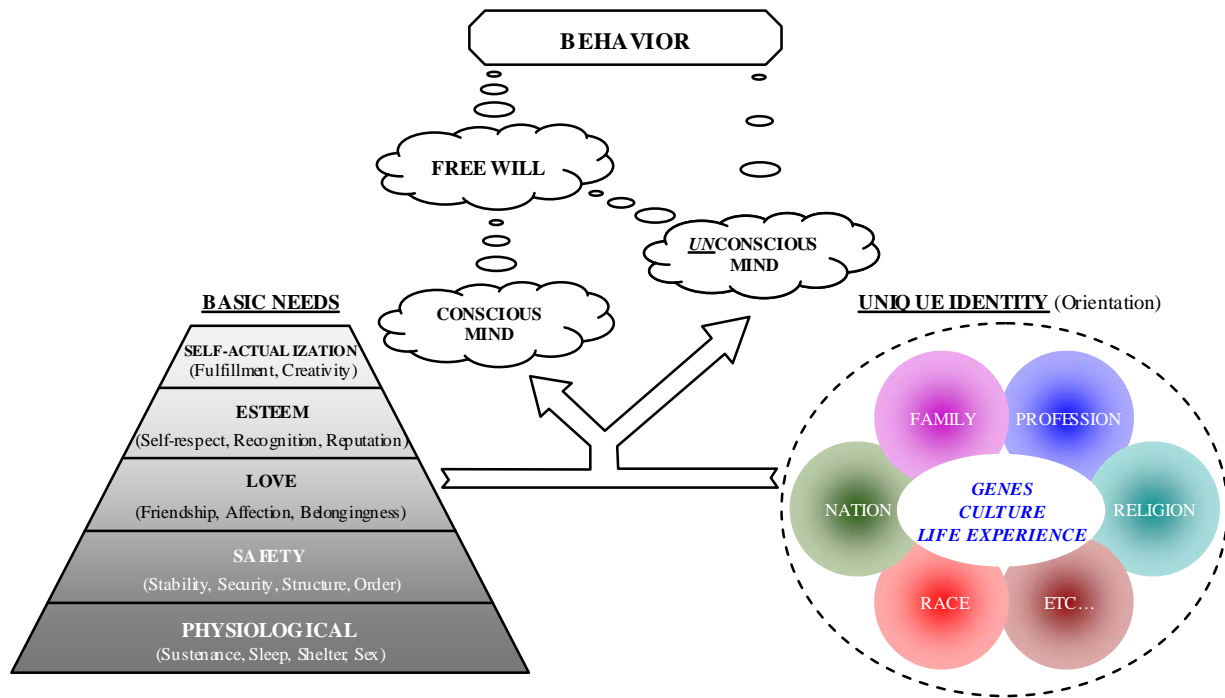


Figure 1 – Influences on Motivation, Will, and Behavior¹²

Identity provides the lens through which each person consciously and unconsciously perceives and interacts with other humans and the environment. Each human has a unique sense-of-identity reflecting contact with a mosaic of social groups such as family, clan, tribe, race, religion, club, profession, nationality, etc. The combination of genetic heritage, cultural influences, and unique life experiences makes each human's sense-of-identity distinct.¹³ The psychological engine of identity is *consciousness*. The philosophical engine of identity is *free will*. Consciousness provides mankind with a unique capacity to influence how he interacts with and shapes his environment by exercising free will. Free will and consciousness lie at the core of social complexity because no matter how much we try to search for social patterns, the behavior of a society reflects the myriad of differing decisions made and actions taken by the individuals who compose that society.¹⁴

Humans seek interaction and are uncomfortable in isolation.¹⁵ They recognize patterns and look for structure. They crave order and stability, and depend upon society to enhance them.¹⁶ Through cooperation, humans create the most complicated societies on earth which continue to grow more complex.¹⁷ Society increases an individual's opportunity to grow and prosper. The influence of identity and basic needs on individual behavior affects the manner in which humans construct those societies.

Expansion: Society and Politics

Society refers to, “an enduring and cooperating social group whose members have developed organized patterns of relationships through interaction with one another.”¹⁸ It can refer to any cooperating social group like a nation, religion, ethnicity, race, clan, profession, organization, or family. Society addresses the basic human need for contact. It contributes to an individual's desire for order and stability, while simultaneously offering the opportunity to evolve and grow through contact with other humans.

Society is an open system that generates energy from the interaction of people.¹⁹ Its boundaries are difficult if not impossible to define because the humans who comprise it also identify with other societies at the same time. This ever-shifting dynamic makes society a unique complex system.²⁰ To modify the behavior of society, one begins by influencing the individual first.

Politics refers to “the total complex of relations between people living in society.”²¹ Politics are inherently complex, encompassing the entire range of social interactions such as friendship, commerce, discrimination, governance, crime, education, and war. Like basic individual needs, these social relationships are interdependent.²²

Culture and *morality* act like binding agents to connect the members within a society. Culture is, “the customary beliefs, social forms, and material traits of a racial, religious, or social group.”²³ Morality refers to the norms and values within a society that distinguish right from wrong, so it is a critical ingredient of culture.²⁴ Culture and morality are emergent properties of society, not the individual human. However, the different cultures and moral codes of various societies play a crucial role in shaping the unique identity of the individual. The survival and prosperity of both the individual and society requires a degree of competition and cooperation resulting in a dynamic relationship that is dominated by the influence of complexity.

Complexity

If something is complex, it is composed of multiple “interconnected or interwoven parts.”²⁵ Independent elements combine, interact, and depend upon each other by creating a whole that is fundamentally different than any of its components.²⁶ In order to fully understand an object, system, or phenomenon, one cannot merely isolate and analyze the component elements. One must evaluate the whole by studying the interactions, too.²⁷

Complexity lies at the heart of politics and societal evolution. Technology spurs *globalization*. Globalization fosters divergent trends of *interdependence* and *fragmentation*. Advances in electronics, transportation, and communication break traditional geographic constraints and feed a growing perception of connectedness as individuals communicate, travel, and migrate in greater numbers.²⁸ Globalization also increases the dependence of societies upon one another politically, financially, and economically. Alternatively, this same technology exposes people to new ideas and to the increasing socio-economic disparities between various regions of the world.²⁹ Consequently, education nurtures a growing disenfranchisement with

existing governments which breeds discontent.^{30/31} The ability of technology to connect physically disparate people who share common beliefs and values helps to cultivate new social groups who interact virtually more than physically. Globalization, interdependence, and fragmentation exert a strong influence on identity and culture, making politics more complex.

The Politics of Competition and Cooperation: A Trinitarian View

As social beings, our politics are complex and reflect a certain harmony between competition and cooperation. People crave order and a degree of certainty because it helps to satisfy basic requirements for security and stability. Stability and security are a function of communal cooperation and must be cultivated within society. However, too much structure and stability can also lead to stagnation which makes a person or society less competitive.

In order to capitalize on the promise of growth, people must welcome change. Evolution requires a degree of cooperation.³² But change is not always positive and the opportunity to grow also offers the risk of failure. Individual and societal existence reflects a continual tension between these forces of change and certainty. However, an individual is but one participant in a multidimensional and multilateral natural and human environment.

Complexity represents the third and unbalancing influence which highlights the lack of control that one has on determining the future. The external environment can be natural (weather or terrain), human (other individuals or social group), or a combination of both. As one conceptualizes the interaction of these forces of certainty, change, and complexity, a trinity of competing forces materializes (Fig. 2). Man's interaction with the external environment forces him to drift between these competing influences. Certainty, change, and complexity influence each other, and their interaction drives the course of human politics.

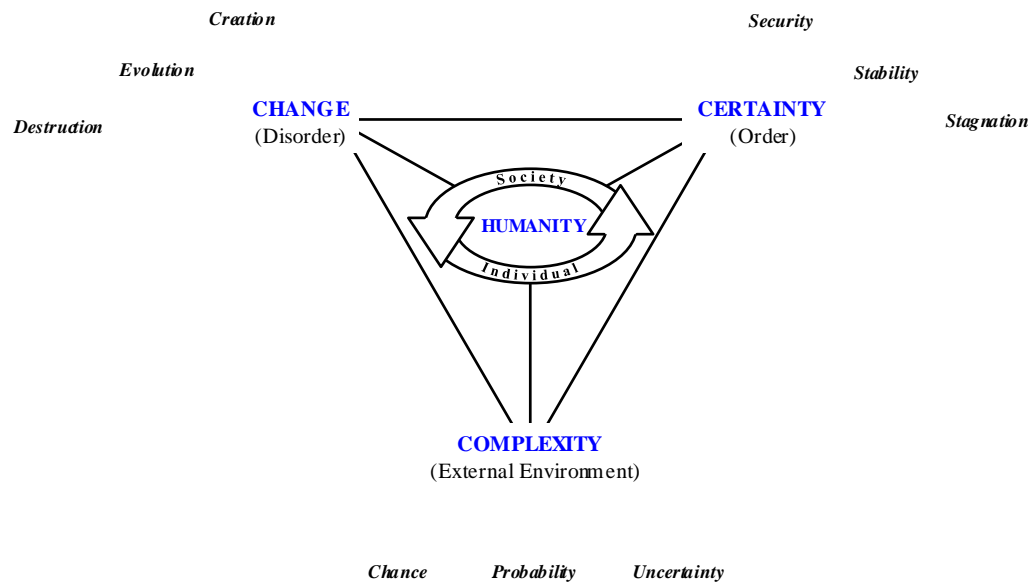


Figure 2 – A Trinitarian Perspective on Politics³³

War versus Warfighting

War is political competition characterized by the organized application of violence in order to influence human will.³⁴ The essence of war is violent struggle between *multiple* independent actors who *choose* to employ force as *one method* of resolving the conflict.³⁵ It is not a diametric, zero-sum conflict.³⁶

In an abstract sense, war is a social phenomenon whose immutable nature is destructive and chaotic. It enters the political trinity as a force of destructive change that undermines the energy and order within a society.³⁷ Like any form of politics, war is strongly influenced by complexity. The degree to which war can erode the stability within and between societies depends upon the specific characteristics of the war.³⁸

In more concrete terms, war is a form of political competition. As such, war illustrates but one domain within a multidimensional and interdependent social system. Society is

primarily a *non-zero-sum* phenomenon characterized by political dynamics that encourage growth more than decay.³⁹ While war is inherently destructive, society is inherently constructive. “Fighting” war may revolve around combat. However, winning war necessitates a holistic approach to human politics. The increasing threat of insurgency stresses the requirement for a holistic perspective.⁴⁰

Insurgency highlights the interdependent nature of politics. It also emphasizes the increasing totality of war.⁴¹ *Totality* refers to the greater degree of personal involvement by society in the execution of war.⁴² The threat of insurgency to national security grows as a result of improved access to increasingly lethal technology coupled with the expanding virus of general disenfranchisement spawned by “progress” in the Information Age.⁴³ Though a form of war, insurgency sheds light on broader political, economic, and/or social issues.

A successful counterinsurgency campaign draws strength away from the insurgents by addressing these systemic problems which underlie the insurgency.⁴⁴ From the perspective of the political trinity, a military must be prepared to harmonize the destructive forces of war with more constructive capabilities that contribute to growth and order so as to nurture a degree of stability and security within a society.⁴⁵ Counterinsurgency demands a comprehensive approach to conflict resolution. The manifestation of insurgency challenges traditional modes of thought regarding the utility of a military. Ultimate victory becomes a function of societal stability which can be undermined by coercion. A military’s ability to apply force may have utility, but it cannot be used or perceived as an end.

Any attempt to artificially reduce war to components such as major combat operations, counterinsurgency, or counterterrorism highlights an incomplete understanding of the interrelated nature of the whole phenomenon.⁴⁶ Divorcing major combat operations from

follow-on counterinsurgent operations demonstrates a fundamentally flawed understanding of war as a continuation of political commerce. A viable warfighting philosophy for the future accepts the interdependent nature of politics and synthesizes war with other forms of “political intercourse” in order to achieve warfighting success, not just combat victory.⁴⁷ Military actions in one theater can result in far-reaching non-military consequences globally. Therefore, the military must be prepared to both constructively and destructively engage individuals and societies in order to compete with multiple external agents who also vie for political power.

Political Power: A Matter of Persuasion & Coercion

At the most elemental level, politics reflect a competition for power. The dynamics that result from this interaction reflects a natural tension between persuasion and coercion (Fig. 2).

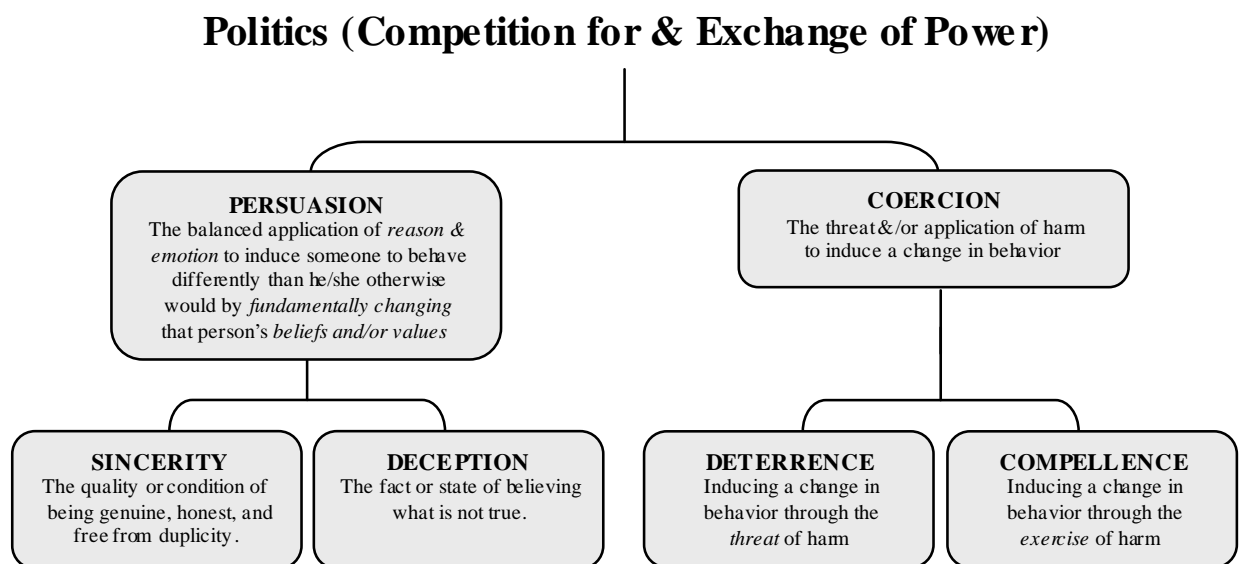


Figure 3 – Politics: Competition for & the Exchange of Power⁴⁸

Like the term *contact*, *persuasion* carries no moral baggage. Persuasion highlights the powerful influence of ideas on the conscious and unconscious motivations that feed human will. It targets human will by leveraging ideas to modify opinions, beliefs, &/or morals. By targeting will, persuasion can have an enduring potential.⁴⁹

Coercion modifies behavior, but it does not fundamentally change the conscious and unconscious motivations that propel human will. Coercion emphasizes physical, not psychological contact. In fact, the force of coercion can intensify the will to resist.⁵⁰ The strength of coercion lies in its temporary capacity to influence behavior. It can help to focus attention, crystallize support, polarize an issue, or minimize overt resistance. But without the ideas to persuade, the utility of coercion only lasts as long as its application or threat of force is perceived to be credible.⁵¹

Coercion will always have utility. Winning war will require the discriminate, precise, and aggressive application of power. But coercion generates tension, fails to address basic needs, challenges a person's identity, and can therefore motivate people to resist. Warfighters must be prepared to kill individuals while preserving and enhancing society. The application of violence must reflect harmony between *humanity* and *military necessity*.⁵² Issues of discrimination and proportionality in an increasingly-networked and media-influenced environment will greatly affect the utility of coercion both short-term and long. The more coercive a military behaves, the less it contributes to enduring political solutions.

Influencing the Trinity: A Continuum of Contact

Limited resources and differing opinions prevent humans from existing in absolute harmony with each other. However, their social nature and basic physiological and

psychological needs also prevent humans from living in total conflict with one another. Between the two theoretical extremes of absolute harmony and total conflict emerges a Continuum of Contact which captures the essence of social interaction.



Figure 4 – The Continuum of Contact⁵³

The Continuum of Contact highlights two important issues. First, it illustrates that most political dynamics include a degree of persuasion and coercion, be it sincere or deceptive, deterrent or compellent. The more coercive the act, the more it escalates tension. The more persuasive the act, the more it de-escalates tension. If the goal is to influence free will, one should appreciate the enduring quality of persuasion versus the fleeting capacity of coercion.

Second, the continuum is meant to emphasize the profound contribution of *individual* decisions and actions. Every human has the capacity to interact with other humans across the entire continuum. Individual behavior along the continuum becomes a question of free will: persuade to de-escalate, or coerce to escalate? The success of an organization like the military is based on the composite of individual actions taken at the tactical level.

The Continuum demonstrates the requirement to foster a bias towards de-escalation. This is arguably where individual actions and organizational behavior meet. The Continuum merely illustrates human behavior that has existed for millennia. For a military, though, the Continuum is meant to reinforce an important point. Persuasion endures and coercion does not without continually expending energy in order to suppress dissent. It is more effective for a nation long-term if all of its instruments of power are trained to seek persuasive means of contact with

foreign audiences. This begins at the tactical level with individuals exercising free will and sound judgment by approaching situations with a bias to de-escalate them whenever possible.

The Continuum of Contact is meant to complement the political trinity. Individual actions taken along the Continuum translate into organizational behaviors that influence the indigenous, domestic, and international societies that are in contact. Taken together, the Continuum and trinity offer mental constructs by which one works to generate *social tempo*.

Strategy for Success: Generating Social Tempo

Social tempo refers to the operating rhythm and freedom-of-action that result from cultivating relationships with indigenous, domestic, and international societies.⁵⁴ The goal of social tempo is to expand one's own freedom-of-action while constricting that of one's adversaries by isolating them from the societies from which they draw strength. Serve one's own interests by serving the needs of society. That begins by addressing basic needs and engaging societies at the individual level. Social tempo is built one person at a time. Establish relationships with the indigenous population in order to undermine those of adversaries. Trust becomes a form of moral capital exchanged by individuals within a society.⁵⁵ Gain the trust of the indigenous society, and one helps to set conditions for future cooperation with other societies. Social tempo hinges on the respect and trust that is nurtured with a wide range of actors and societies. It requires time, persistent patterns of behavior, and sacrifice.

Social tempo is governed by the society that is targeted. This makes *time* a commodity that cannot be controlled. The behavior of society resides in individual free will which can take time to persuade. Society has an inertia based on the influence of individual free will. Where time can be manipulated, success hinges on expanding friendly time in order to establish patterns

and to limit breakdowns in trust while compressing adversary time in order to encourage mistakes and foster breakdowns in trust. This concept of time challenges the traditional paradigm whereby commanders compress their time while expanding that of their adversaries.⁵⁶

Social tempo requires a comprehensive effort in order to gain the psychological contact necessary to engage the conscious and unconscious. It demands a holistic appreciation for the basic needs of society and the influence of those needs on individual motivations and identity.⁵⁷ The military cannot generate social tempo by itself. It cannot solve problems, but it can exacerbate them. The military must synchronize its efforts with non-military efforts.

SECTION 3 – SYNTHESIS

GAINING “CONTACT” WITH ALLIES, ADVERSARIES, & THE NON-ALIGNED

The *Contact* Mindset

A *Contact* mindset seeks to understand problems holistically. It recognizes that militaries are not closed systems. It embraces the reality of complexity and the nature of human societies as open systems. Societies are complex systems whose energy is constantly shifting based on the decisions and actions of individuals exercising free will in order to seek harmony between change and certainty in a fundamentally uncertain environment. In a political dynamic characterized by competition and cooperation, coercion has more limits than persuasion.

Contact harmonizes combat operations with enduring requirements to enhance social vitality by viewing war as one dimension of a broader political reality involving a myriad of competitors. It is founded upon a bias for de-escalation which encourages members to seek long-term solutions to problems. An individual armed with a de-escalation bias conducts operations with an eye toward cultivating indigenous, domestic, and international relationships. Those bonds require time, persistence, and a degree of shared sacrifice. One learns to operate more effectively within the political trinity by engaging societies in a more constructive manner. It demands a comprehensive approach to operations that works to influence societies at a conscious and unconscious level by recognizing individual and societal diversity, and by addressing those needs that help to build respect and earn trust. It leads to the deliberate, measured application of coercion in harmony with unrestrained efforts to persuade.

Generating social tempo must remain the priority. Adversaries must be defeated. But the most effective method of defeating competitors in an increasingly globalized environment is to coopt non-competitors in order to persuade (and if necessary to coerce) adversaries to quit competing. This emphasis challenges a military's traditional emphasis on "rapid, focused, and unexpected actions which create a turbulent and rapidly deteriorating situation" in order to shatter the cohesion of an adversary.⁵⁸ Operational tempo that seeks to shatter enemy cohesion must be balanced by efforts to build and maintain social tempo. By prioritizing society over adversaries, a military can work to undermine adversaries' will-to-compete by isolating them from their fundamental source of power: human society.

General Implications

The strength of *Contact* resides in the mindset by which one approaches society as a member of the armed forces. While technology is a critical enabler, it is not central.⁵⁹ Adherence to the Just War tradition and Law of Armed Conflict (LOAC) will continue to grow in importance. In fact, strict ethical accountability and aggressive enforcement of unethical activities will remain incredibly powerful weapons in the fight for social tempo.

Contact requires an expanded understanding of social systems. This means that a basic understanding of disciplines such as philosophy, psychology, sociology, economics, and systems theory must permeate general military education. A broader understanding of social dynamics will lead to a more comprehensive view of warfighting that challenges individuals to consider the consequences of their actions before applying force. Education must highlight the singularity of the individual because that is where the competition of will begins.

The *Contact* mindset promotes the *humanization of enemies* since adversaries emerge from the fabric of society. Humanization will present serious challenges. First, it increases the potential for post-traumatic stress disorders (PTSD).⁶⁰ Second, it offers enemies an increased degree of initiative. By cultivating a de-escalation bias, one increases the likelihood that adversaries can initiate combat engagements. However, this is one example of how the military can accept temporary risk for long-term gain. Personal accountability for ethical behavior married to the discriminate, precise, and aggressive use of violence in reaction to enemy actions can become another powerful engine for generating social tempo.

Contact will enhance the increasing integration with non-military organizations.⁶¹ As war increases in its totality, the distinction between combatants and non-combatants blurs. The organizations deployed to champion national interests should reflect the evolving character of the battlespace by expanding the idea of *jointness*. *Jointness* highlights the fact that mission accomplishment requires cross-service integration. *Contact* can enhance military and civilian cross-pollination. It will encourage deeper integration between military and civilian societies as part of larger, governmental organizations.

Contact emphasizes that non-military interdependence can benefit military operations in several ways. First, a comprehensive integration of civilians will fundamentally change the way in which military forces plan and execute operations. Concerns over operational security must be balanced by the trust that comes with information sharing. Second, the addition of civilians will reinforce the requirement for ethical conduct as issues of military necessity must be reconciled with civilians' humanitarian concerns. Third, if one accepts that future military operations will rarely involve pristine battlefields devoid of non-combatants, then the organic diversity of multi-discipline government organizations acts as a powerful tool to persuade. The

incorporation of non-military personnel will increase the breadth of organic expertise enhancing social tempo by gaining contact on both conscious and unconscious levels.

Contact marks an evolution in military professionalism. Personnel learn to take an expanded view on time in order to anticipate second and third-order consequences of their actions. With an institutional bias towards de-escalation, commanders are more likely to pursue non-violent methods of resolving problems. They will recognize the decisive potential of non-combat operations, and accept more risk by trading combat efficiency for the ability to generate social tempo. Commanders will learn to strive for unity-of-purpose. Unity-of-effort / command might be preferred; however, neither can be expected in environments characterized by intense competition between rival militaries, foreign governments, international and non-governmental organizations (IOs and NGOs), private enterprise, and a host of non-aligned local societies.

Technology will significantly enhance the speed of decision-making, but priority will be given to the accuracy of those decisions in order to enhance social tempo. The emphasis on decentralized execution will only increase as small-unit leaders become more empowered to make decisions based on their unique circumstances. The ability to synchronize operations across theaters, government agencies, and nationalities will systematically erode the virtual cohesion that allows fragmented and physically disparate adversaries to work toward a common purpose. Whether they remain physically enmeshed within society or not, the patient, persistent, and ethical behavior of military forces will isolate adversaries morally from their base of support. While the inherent tendency to avoid aggression may inhibit operational tempo when compared to combat operations, leaders will understand that their actions do more to create favorable conditions after tensions subside, thereby leading to success at the cost of combat victory.

CONCLUSION

PROMETHEUS AT THE DOOR

Militaries have understood for centuries that war is but one dimension of politics. However, an underlying assumption has permeated American military thought regarding the role of the military. Military organizations have always performed a wider range of activities than fighting in combat. However, those other, non-combat operations were never regarded as decisive in themselves. Winning war was distilled to a matter of defeating adversaries in combat. The essence of a military was success in combat. That assumption is being challenged today by world events. Military leaders of all ranks must confront fundamental changes in society armed with an incomplete warfighting philosophy. It is time to recognize and accept the external forces that are compelling change within the military. The clues already exist.⁶² The philosophical underpinnings of military transformation should be founded upon the emerging opportunities afforded by subtle shifts in social dynamics. *Contact* is founded upon the nature of man and society, not in the nature of war nor the capability of emerging technology.

Contact is a warfighting philosophy that seeks to undermine adversaries' will-to-compete by isolating them from their fundamental source of power: human society. It recognizes the increasing totality of war as indigenous, regional, and global societies are all drawn into it more completely than in the past. It appreciates an important consequence of this increasing totality. As more disparate societies are drawn into war in a more profound manner, warfighting success

no longer can be perceived as a function of combat victory. Within a larger framework of societies in contact, one observes that the essence of a military is *not* killing, but contact. Applying violence remains one of the primary functions of a military. However violence need not define its essence. One must learn to operate more holistically within the political trinity by engaging indigenous, domestic, and international societies in a more constructive manner in order to cultivate enduring relationships. This results in a different paradigm for the military. The requirement to defeat enemies in combat will never disappear. However, the military can contribute to warfighting more decisively by investing its resources in a manner that emphasizes how it can shape the environment before and after tensions intensify. *Contact* embraces the nascent opportunities and vulnerabilities afforded by a world that has always been complex and is only getting more so. The resulting transformation in worldview infuses the institution with the clarity and situational acuity it requires to maintain focus in an increasingly complex political environment. In the end, it's all about contact.

BIBLIOGRAPHY

History, Theory, & Military Issues

Arquilla, John and David Ronfeldt. In Athena's Camp: Preparing for Conflict in the Information Age. MR-880-OSD/RC. Santa Monica, CA: The Rand Corp., 1997. Download from Rand website at <http://www.rand.org/publications/MR/MR880/index.html>.

Asprey, Robert B. War in the Shadows: The Guerrilla in History. New York, NY: Garden City, 1975.

Beyerchen, Alan D. "Clausewitz, Nonlinearity and the Unpredictability of War." in Coping with the Bounds: Speculations on Nonlinearity in Military Affairs. Tom Czerwinski. Washington, DC: National Defense University, 1998. Download from Clausewitz Homepage at <http://www.clausewitz.com/CWZHOME/Beyerchen/CWZandNonlinearity.htm>.

Boot, Max. The Savage Wars of Peace: Small Wars and the Rise of American Power. New York, NY: Basic Books, 2002.

Boyd, John D. Col (ret.). "Destruction and Creation." September, 1976. Downloaded from Defense and the National Interest website at http://www.belisarius.com/modern_business_strategy/boyd/destruction/destruction_and_creation.htm.

Boyd, John D. Col (ret.). "Patterns of Conflict." December, 1986. Downloaded from Defense and the National Interest website at <http://www.d-n-i.net/boyd/pdf/poc.pdf>.

Boyd, John D. Col (ret.). "Strategic Game of ? and ?." June, 1987. Downloaded from Defense and the National Interest website at http://www.d-n-i.net/boyd/strategic_game.pdf.

Calaveri, David P., LtCol (ret). Easier Said Than Done: Making the Transition from Combat Operations to Stability Operations. Global War on Terrorism Occasional Paper 7. Ft. Leavenworth, KS: Combat Studies Institute Press, 2005. Download from CSI website at <http://cgsc.leavenworth.army.mil/carl/download/csipubs/cavaleri.pdf>.

Calaveri, David P., LtCol (ret). The Law of War: Can 20th – Century Standards Apply to the Global War on Terrorism?. Global War on Terrorism Occasional Paper 9. Ft.

- Leavenworth, KS: Combat Studies Institute Press, 2005. Download from CSI website at http://cgsc.leavenworth.army.mil/carl/download/csipubs/cavaleri_law.pdf.
- Chiarelli, MajGen Peter W., Maj Patrick R. Michaelis. "Winning the Peace: the Requirement for Full-Spectrum Operations." in Military Review. Vol. 82, No. 4. Ft. Leavenworth, KS: U.S. Army Combined Arms Center, July-August 2005.
- Clausewitz, Carl von. On War. ed. and trans. by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976. The 1873 British translation by Colonel J.J. Graham is downloadable at http://www.clausewitz.com/CWZHOME/On_War/ONWARTOC.html.
- Galula, David. Counterinsurgency Warfare: Theory and Practice. New York, NY: Frederick A. Praeger Publishers, 2005.
- Hammes, Thomas, X. Col (ret). "Insurgency: Modern Warfare Evolves into a Fourth Generation." Strategic Forum, Number 214. Washington, DC: NDU Press, January, 2005. Download from National Defense University website at <http://www.ndu.edu/inss/strforum/SF214/SF214.pdf>.
- Hammes, Thomas, X. Col (ret). The Sling and the Stone: On War in the 21st Century. St Paul, MN: Zenith Press, 2004.
- Heydte, Friedrich Frhr. von der. Modern Irregular Warfare, In Defense Policy as a Military Phenomenon. trans. by George Gregory. New York, NY: New Benjamin Franklin House, 1986. Download from University of Pennsylvania Online Books Page at <http://www.wlym.com/pdf/iclc/modernwarfare.pdf>.
- Johnson, David E., Karl P. Mueller, and William H. Taft V. Conventional Coercion Across the Spectrum of Conventional Operations: the Utility of U.S. Military Forces in the Emerging Security Environment. MR-1494-A. Santa Monica, CA: The Rand Corp., 2002. Download from Rand website at <http://www.rand.org/publications/MR/MR1494/>.
- Lesser, Ian O., Bruce Hoffman, John Arquilla, David F. Ronfeldt, Michele Zanini, and Brian Michael Jenkins. Countering the New Terrorism. MR-989-AF. Santa Monica, CA: The Rand Corp., 1999. Download from Rand website at <http://www.rand.org/publications/MR/MR989/>.
- Liddell Hart, B.H. Strategy. 2d rev. ed. New York, NY: Praeger Publishers, Inc., 1975.

Lind, William S. "FMFM 1-A: Fourth Generation War (Draft)." Accessed at http://www.defense-and-society.org/lind/4gw_manual_draft_3_revised_10_june_05.doc.

Lind, William S. Maneuver Warfare Handbook. Boulder, CO: Westview Press, 1985.

Maneuver Warfare: An Anthology. ed. by Richard D. Hooker, Jr. Novato, CA: Presidio Press, 1993.

O'Neill, Bard E. Insurgency and Terrorism: Inside Modern Revolutionary Warfare. Washington, DC: Brassey's (US), Inc., 1990.

Richardson, R., D. Verweij, D. Winslow. "Moral Fitness for Peace Operations." in Journal of Political and Military Sociology. Vol. 32, No. 1. DeKalb, IL: Northern Illinois University, Summer 2004.

Sageman, Marc. Electronic notes on book Understanding Terror Networks. Posted 01 November, 2004, on Foreign Policy Research Institute website at <http://www.fpri.org/enotes/20041101.middleeast.sageman.understandingterrornetworks.html>.

The Human Face of Warfare: Killing, Fear, & Chaos in Battle. ed. by Michael Evans and Alan Ryan. New South Wales, Australia: Allen & Unwin, 2001.

Tzu, Sun. The Art of War: the Denma Translation. trans. by the Denma Translation Group. Boston, MA: Shambhala Publications, Inc, 2001. Though not a copy of this translation, a different version of The Art of War can be downloaded at <http://www.sonshi.com/learn.html>.

Zinni, Anthony Gen (ret). "A Military for the 21ST Century: Lessons from the Recent Past." Strategic Forum, Number 181. Washington, DC: NDU Press, July, 2001. Download from National Defense University website at <http://www.ndu.edu/inss/strforum/SF181/SF181.PDF>.

Policy & Doctrine

Department of Defense, Office of Force Transformation. The Implementation of Network-Centric Warfare. Washington, DC: GPO, 5 January 2005. Download from Office of

Force Transformation website at
http://www.oft.osd.mil/library/library_files/document_387_NCW_Book_LowRes.pdf.

Fleet Marine Force Reference Publication 12-15. Small Wars Manual. N.p. December 1990.
Download from Marine Corps Warfighting Laboratory website at
<http://www.smallwars.quantico.usmc.mil/SWM/1215.pdf>.

Joint Chiefs of Staff. Joint Publication 1. Joint Warfare of the Armed Forces of the United States. Washington, DC: GPO, 14 November 2000. Download from Joint Electronic Library website at http://www.dtic.mil/doctrine/jel/new_pubs/jp1.pdf.

Joint Chiefs of Staff. National Military Strategy of the United States of America. Washington, DC: GPO, May, 2004. Download from Office of Force Transformation website at
http://www.oft.osd.mil/library/library_files/document_377_National%20Military%20Strategy%2013%20May%202004.pdf.

Marine Corps Doctrinal Publication 1. Warfighting. Washington, DC: GPO, June 1997.
Download from Marine Corps Combat Development Command's Doctrine Division website at <http://www.doctrine.usmc.mil/signpubs/d1.pdf>.

Office of the President of the United States of America. "The National Security Strategy of the United States of America." Washington, DC: GPO, September, 2002. Download from the White House website at <http://www.whitehouse.gov/nsc/nss.pdf>.

Social Sciences (Sociology & Psychology)

Boyd, Robert and Peter J. Richerson. "Solving the Puzzle of Human Cooperation." in Evolution and Culture: A Fyssen Foundation Symposium. ed. by Stephen C. Levinson and Pierre Jaisson. Cambridge, MA: The MIT Press, 2005.

Claxton, Guy. Hare Brain Tortoise Mind: How Intelligence Increases When You Think Less. New York, NY: HarperCollins Publishers, Inc., 1997.

Fogarty, Brian. War, Peace, and the Social Order. Cambridge, MA: Perseus Publishing, 2000.

Gladwell, Malcolm. Blink: The Power of Thinking Without Thinking. New York, NY: Little, Brown and Company, 2005.

Gell-Mann, Murray. "Complex Adaptive Systems." in The Mind, The Brain, and Complex Adaptive Systems: Proceedings Volume XXII. ed Harold Morowitz & Jerome L. Singer. Reading, MA: Addison-Wesley Publishing Company. 1995.

Kihlstrom, John F. "The Rediscovery of the Unconscious." in The Mind, The Brain, and Complex Adaptive Systems: Proceedings Volume XXII. ed Harold Morowitz & Jerome L. Singer. Reading, MA: Addison-Wesley Publishing Company. 1995. Download from University of California, Berkeley website at <http://ist-socrates.berkeley.edu/~kihlstrm/rediscovery.htm>

Maslow, Abraham H. "A Theory of Human Motivation." Originally published in Psychological Review, 1943. Download from York University Psychology Department website at <http://psychclassics.yorku.ca/Maslow/motivation.htm>.

Maslow, Abraham H. Motivation and Personality, Third Edition. New York, NY: Addison-Wesley Educational Publishers, Inc, 1987.

Ridley, Matthew. The Agile Gene: How Nature Turns on Nurture. New York, NY: HarperCollins Publishers, Inc., 2003.

Ridley, Matthew. The Origins of Virtue: Human Instincts and the Evolution of Cooperation. New York, NY: Penguin Books, 1998.

Stewart, John. Evolution's Arrow: The Direction of Evolution and the Future of Humanity. Canberra, Australia: The Chapman Press, 2000.

Wright, Robert. Nonzero: the Logic of Human Destiny. New York, NY: Vintage Books (Random House, Inc.), 2000.

Complexity, Systems Thinking, & Network Theory

Barabási, Albert-László. Linked: How Everything is Connected to Everything Else and What It Means. Cambridge, MA: Perseus Publishing, 2002.

Checkland, Peter. Systems Thinking, Systems Practice. Chichester, England: John Wiley & Sons, Ltd., 1981.

Schmidtchen, David LtCol. "Network-Centric Warfare: The Problem of Social Order." Land Warfare Studies Centre Working Paper No. 125 (June 2005). Duntroon, ACT: Land Warfare Studies Centre, June 2005. Download from Australian Army's Land Warfare

Studies Centre website at
<http://www.defence.gov.au/army/lwsc/Publications/WP%20125.pdf>.

Technology & Society Issues

Antón, Philip S., Richard Silbergliitt, and James Schneider. The Global Technology Revolution: Bio/Nano/Materials Trends and Their Synergies with Information Technology by 2015. MR-1307-NIC. Santa Monica, CA: The Rand Corp., 2001. Download from Rand website at <http://www.rand.org/publications/MR/MR1307/>.

United Nations, Department of Economic and Social Affairs. World Economic and Social Survey 2005: Financing for Development. New York, NY: United Nations Publishing, June, 2005. Download from UN DESA website at <http://www.un.org/esa/policy/wess/wess2005files/wess2005web.pdf>.

Online Reference Publications

American Heritage Dictionary of the English Language, Fourth Edition. Boston, MA: Houghton Mifflin Company, 2003. Accessed online at <http://www.thefreedictionary.com/>.

Merriam-Webster Online Dictionary. Copyright 2005. Accessed online at <http://www.m-w.com/>.

Stanford Encyclopedia of Philosophy. ed. by Edward N. Zalta. Winter 2003 Edition. Accessed online at <http://plato.stanford.edu/contents.html>.

Wikipedia, the Free Online Encyclopedia. Accessed online at http://en.wikipedia.org/wiki/Main_Page.

NOTES

¹ American Heritage Dictionary of the English Language, Fourth Edition, (Boston, MA: Houghton Mifflin Company, 2003). Accessed online under the word “contact” at <http://www.thefreedictionary.com/contact>.

² While both concepts have very relevant ideas regarding future warfare, *maneuver warfare* and *network-centric warfare* are terms that miss the fundamental activity of any form of politics: contact.

³ Joint Chiefs of Staff, Joint Publication 1, Joint Warfare of the Armed Forces of the United States, (Washington, DC: GPO, 14 November 2000), p III-1.

⁴ Clausewitz compared war to a duel (“Zweikampf”) and used a metaphor of two men wrestling in order to create an image for the reader. This “Zweikampf” mentality lies at the heart of current warfighting thinking. War is regarded as a diametric, zero-sum struggle between two adversaries where the victory of one means the defeat of the other. The author contends that this perspective simplifies a political dynamic to the point of misunderstanding. Human politics are far more complex than diametric confrontations. Carl von Clausewitz, On War, ed. and trans. by Michael Howard and Peter Paret, (Princeton, NJ: Princeton University Press, 1976), p 75. Use of the term “political commerce” comes from the 1873 translation of On War by Col. J.J. Graham. “We see, therefore, that war is not merely a political act, but also a real political instrument, a continuation of *political commerce* [author’s emphasis], a carrying out of the same by other means” (Book I, Chapter 1, Section 24). The 1873 Graham translation can be downloaded at http://www.clausewitz.com/CWZHOME/On_War/ONWARTOC.html.

⁵ A detailed philosophical debate exceeds the scope of this paper. However, the author contends that mankind is neither innately evil nor good, but social. Morality reflects a subjective harmony between the interests of the individual and of society. Natural selection has cultivated genetic predispositions in humans that are inherently social in nature. Our culture nurtures this social nature and our societies represent the most complex living systems on earth. In the end, it is not a question of nature *or* nurture. Our existence is a matter of nature *and* nurture. For a more comprehensive exploration of this subject across philosophy, biology, sociology, and psychology, read the following books by Matthew Ridley: The Origins of Virtue: Human Instincts and the Evolution of Cooperation, (New York, NY: Penguin Books, 1998); and The Agile Gene: How Nature Turns on Nurture, (New York, NY: HarperCollins Publishers, Inc., 2003).

⁶ In fact, while one may equate *Darwinism to competition*, the evolution of mankind is more ironic. Natural selection has nurtured a genetic predisposition to cooperate in humans. Cooperation is fundamental to social Darwinism. Mankind is genetically adapted and culturally educated to cooperate with other humans as a method of furthering self-interests. Cooperation facilitates the division-of-labor which ultimately makes society a *non-zero-sum* proposition – it can be a “win-win” for all involved. Research in the social sciences continues to reinforce that cooperation is genetically and culturally programmed into our very nature because it is most beneficial to the individual. Ridley, pp 49, 207, 249-51. For more, read John Stewart, Evolution's Arrow: The Direction of Evolution and the Future of Humanity, (Canberra, Australia: The Chapman Press, 2000). Also read Robert Wright, Nonzero: the Logic of Human Destiny, New York, NY: Vintage Books (Random House, Inc.), 2000.

⁷ In his first of three presentations, “Patterns of Conflict,” Boyd concludes that the goal of human nature is to, “survive, survive on own terms, or improve our capacity for independent action.” The implication of this goal is that “life is conflict, survival, and conquest.” This paper challenges that implication. Life is not just conflict. Humans survive through *contact*, which reflects far more complex dynamics than *conflict*. Colonel John D. Boyd, “Patterns of Conflict,” (December, 1986), slide 10. Downloaded from Defense and the National Interest website at http://www.d-n-i.net/boyd/patterns_ppt.pdf.

⁸ The study of the unconscious mind, while still in its infancy, continues to gain momentum. While the unconscious mind is contemplative, creative, and adept at processing a wide variety of inputs simultaneously, it can neither control nor evaluate those inputs. The conscious mind is focused, critical, and uniquely adept at evaluating inputs in order to develop solutions. But compared to the unconscious, it can neither observe nor process nearly the same number and variety of inputs simultaneously. A good starting point to learn about the profound influence of the unconscious mind on conscious thought is Guy Claxton’s Hare Brain Tortoise Mind: How Intelligence Increases When You Think Less, (New York, NY: HarperCollins Publishers, Inc., 1997). A more widely-recognized book on unconscious thinking is Malcolm Gladwell’s Blink: The Power of Thinking Without Thinking, (New York, NY: Little, Brown and Company, 2005).

⁹ Abraham H. Maslow, Motivation and Personality, Third Edition, (New York, NY: Addison-Wesley Educational Publishers, Inc, 1987). Pp 3-4. The first work that Maslow published which introduced the Hierarchy of Basic

Needs was “A Theory of Human Motivation,” originally published in *Psychological Review*, 1943. Downloaded from York University Psychology Department website at <http://psychclassics.yorku.ca/Maslow/motivation.htm>.

¹⁰ For example, safety needs depend on at least partial satisfaction of one’s physiological needs. Conversely, esteem needs build self-confidence which in turn have positive effects on how you continue to address the more basic safety and love needs. Maslow, p 10, 26-30.

¹¹ Maslow, pp 28-9.

¹² This conceptualization is the author’s. The Hierarchy of Needs (“Basic Needs”) comes from Maslow’s “A Theory of Human Motivation.” The linkages between needs, identity, motivations, and behaviors reflect a synthesis of sources from Maslow, Claxton, and Col. John Boyd.

¹³ *Sense-of-identity* complements Boyd’s concept of *Orientation*. As the most important step in his O-O-D-A cycle (observation-orientation-decision-action), *orientation* “represents images, views, or impressions of the world shaped by genetic heritage, cultural tradition, previous experiences, and unfolding circumstances.” Put another way, every human has a unique sense-of-identity which shapes the manner by which he perceives and interacts with his environment. Boyd’s definition of orientation comes from Colonel John D. Boyd, “Organic Design for Command and Control,” (May, 1987), slide 13. Downloaded from Defense and the National Interest website at http://www.d-n-i.net/boyd/organic_design.pdf.

¹⁴ Peter Checkland, *Systems Thinking, Systems Practice*, (Chicester, England: John Wiley & Sons, Ltd., 1981), pp 60-82.

¹⁵ The US Marine Corps’ maneuver warfare philosophy is founded upon the ideas of Col. John D. Boyd. The third of three presentations which form the intellectual basis for his theories is “Strategic Game of ? and ?.” One of the central themes of this presentation is that humans seek interaction and avoid isolation. In fact, *interaction* and *isolation* fill in the “?” of the title. Colonel John D. Boyd, “Strategic Game of ? and ?,” (June, 1987), slides 28-9. Downloaded from Defense and the National Interest website at http://www.d-n-i.net/boyd/strategic_game.pdf.

¹⁶ Maslow, pp 5-6, 12-4, 17-23.

¹⁷ The increasing complexity of human societies based on genetic predispositions to cooperate is expanded in Matthew Ridley’s, *The Origins of Virtue*. See note 4.

¹⁸ *Merriam-Webster Online Dictionary*, accessed online under the word “society” at <http://www.m-w.com/dictionary/society>, copyright 2005.

¹⁹ Consciousness provides humans with the capacity to *intentionally* modify the emergent properties of the larger complex system – i.e. human societies. No other complex system can do that. Human societies must be classified as *open systems* for three reasons. First, scientists who study social systems interact with the systems in such a way as to deny pure objectivity. Their presence within the system automatically changes its dynamics. Second, it is difficult (if not impossible) to classify humans for the purpose of analysis since each human simultaneously identifies with multiple societies. Third, because of this identification with multiple societies, it becomes nearly impossible to determine boundaries for a system. Boyd does a superb job of connecting the 2nd Law of Thermodynamics (Entropy), Gödel’s Incompleteness Theorem, and Heisenberg’s Uncertainty Principle in order to draw important conclusions regarding the nature of human societies as open-systems. Colonel John D. Boyd, “Destruction and Creation,” (September, 1976), downloaded from the Belisarius website at http://www.belisarius.com/modern_business_strategy/boyd/destruction/destruction_and_creation.htm. Peter Checkland’s discussion of human societies as “soft systems” is another worthwhile resource for understanding the dynamics of open-systems. Checkland, 99-122.

²⁰ A complex system is “a system of many parts which are coupled in a nonlinear fashion. A nonlinear connection means that change on one side is not proportional to change on the other. Because they are nonlinear, complex systems are more than the sum of their parts.” *Wikipedia Online Encyclopedia*, accessed online under the term “complex system” at http://en.wikipedia.org/wiki/Complex_system. Human society is a unique complex system because it is the only complex system whose emergent properties are determined by the conscious behaviors of its components – people. Human behavior does not emerge from the *intentional* choices of its organs. The actions of those organs are not based on the *conscious* decisions of its cells. But the individual human intentionally exerts varying degrees of influence on the behavior of society. For more about human societies as unique complex systems, read Checkland, pp 99-122.

²¹ *Merriam-Webster Online Dictionary*, accessed online under the word “politics” at <http://www.m-w.com/dictionary/politics>, copyright 2005.

²² The interdependent nature of politics challenges the reductionism of the Western scientific method. Reductionism refers to the method by which we attempt to isolate parts of a whole in order to analyze and understand their particular nature &/or qualities. The problem with this method is that it focuses on the parts

(analysis) and fails to capture the nature of the connections between the parts as a function of the whole (synthesis). Systems theory challenges the utility of the scientific method and attempts to maintain emphasis on the whole by focusing on the interactions between the individual parts. For example, instead of studying the different systems of the human body individually (digestive, immune, endocrine, etc.), biologists learn to understand how these different systems integrate & cooperate to maintain health in a holistic manner. In this same way, if one attempts to analyze war in isolation, that analysis must be synthesized within a broader political context in order to build true situational awareness. For more on systems theory as it applies to human systems, read Peter Checkland, Systems Thinking, Systems Practice, (Chichester, England: John Wiley & Sons, Ltd., 1981). In particular, read pp 36-82 for more information comparing the systems approach to the scientific method of reductionism.

²³ Merriam-Webster, accessed under “culture” at <http://www.m-w.com/dictionary/culture>.

²⁴ R. Richardson, D. Verweij, D. Winslow, “Moral Fitness for Peace Operations,” in Journal of Political and Military Sociology, Vol. 32, No. 1, (DeKalb, IL: Northern Illinois University, Summer 2004) pp 99-113.

²⁵ American Heritage Dictionary, accessed online under “complex” at <http://www.thefreedictionary.com/complex>.

²⁶ Checkland, pp 99-122.

²⁷ See note 17.

²⁸ While not the only illustration, this growing sense of connectedness is evident between nation-states. O’Neill discusses some of these trends of the Information Age. Bard E. O’Neill, Insurgency and Terrorism: Inside Modern Revolutionary Warfare, (Washington, DC: Brassey’s (US), Inc., 1990), pp 112-4. RAND Corporation produced an informative study on several types of information technology that will exert the most profound influence on global society for the next 20 years. Read Philip S. Antón, Richard Silbergliitt, and James Schneider, The Global Technology Revolution: Bio/Nano/Materials Trends and Their Synergies with Information Technology by 2015, MR-1307-NIC, (Santa Monica, CA: The Rand Corp., 2001). Download from Rand website at <http://www.rand.org/publications/MR/MR1307/>.

²⁹ For an initial look at the issues related to the increasing economic disparity between developed and underdeveloped states, read United Nations, Department of Economic and Social Affairs, World Economic and Social Survey 2005: Financing for Development, (New York, NY: United Nations Publishing, June, 2005). Download from UN DESA website at <http://www.un.org/esa/policy/wess/wess2005files/wess2005web.pdf>. The growing economic disparity between different regions of the world (what he calls the “Non-integrating Gap”) and the impact of that on future geopolitics is discussed by Thomas Barnett. Read Thomas P.M. Barnett, The Pentagon’s New Map: War and Peace in the Twenty-First Century, (New York, NY: Berkley Books, 2004), pp 18-58.

³⁰ The reasons that motivate people to challenge established authorities violently are more complicated than just economic. Economic factors may play an important role in marketing a cause, but may not form the fundamental rationales. Friedrich Frhr. von der Heydte, Modern Irregular Warfare, In Defense Policy as a Military Phenomenon, trans. by George Gregory, (New York, NY: New Benjamin Franklin House, 1986), p 13. Download from University of Pennsylvania Online Books Page at <http://www.wlym.com/pdf/iclc/modernwarfare.pdf>.

³¹ Respected terrorist expert and former CIA case officer Marc Sageman provides further evidence that economic factors may not be the most important influence in recruiting insurgents. From the research in his book, Understanding Terror Networks, he concludes that the majority of people who joined Al Qaeda from Egypt as part of the Salafist movement came from middle- and upper-class, stable families. The cellular nature of these terrorist networks creates a unique challenge to modern militaries because cohesion is a virtual not physical matter. Read Marc Sageman, Electronic notes on book Understanding Terror Networks, posted 01 November, 2004, on Foreign Policy Research Institute website at <http://www.fpri.org/enotes/20041101.middleeast.sageman.understandingterrornetworks.html>.

³² One of the best examples of evolution through cooperation is the complex division-of-labor first explained by Adam Smith and its effect on individual prosperity and growth. As the division-of-labor increased the individual’s prosperity, society evolved based on a greater division-of-labor. Ridley, pp 41-50.

³³ The political trinity is the author’s creation. However, the idea for it comes from Clausewitz who used the three-body problem to describe war. His allusion remains one of the more powerful mental images for understanding such a complex phenomenon. However, instead of placing war in the middle of three forces (primordial violence, subordination to policy, and chance), the author chose to place humans and their societies in the middle in order to expand the concept to politics in general instead of just war. Clausewitz, p 89.

³⁴ This definition is the author’s but is primarily derived from Clausewitz. The only point the author wishes to emphasize is that war seeks to influence, not to compel, human will. Clausewitz, pp 75-89.

³⁵ This explanation challenges the assertion in MCDP1 that the essence of war is “a violent struggle between two hostile, independent, and irreconcilable wills.” MCDP 1, p 3.

³⁶ This diametric, zero-sum perspective is captured in MCDP-1 with the quotation, “the essence of war is a violent struggle between two hostile, independent, and irreconcilable wills, each trying to impose itself on the other.” No matter how much one addresses the inherent complexity of war, this quote drives to the heart of the current warfighting paradigm that perceives war in diametric, zero-sum terms. This paradigm simplifies a complex phenomenon to the point of misunderstanding. Military planning and training still emphasizes a “Zweikampf” mentality that is oriented on a diametric struggle with an enemy. Changes in training, education, and planning are beginning to have an effect, but the institution still maintains a “Zweikampf” mentality. MCDP-1, p 3.

³⁷ It is possible that one may look to the rise in patriotic fervor or increase in economic growth as indicators that war can stimulate human energy within society. However, even in an example such as World War II, one must ask at what cost that prosperity was won in human lives, global destruction, and the subsequent spawn of insurgencies that erupted worldwide in its aftermath.

³⁸ Clausewitz’ characterization of war as a chameleon remains accurate and relevant today. While the nature of war is timeless, and certain characteristics between wars may be similar, each war must be viewed as a distinct phenomenon that is unique from other wars. Clausewitz, p 89.

³⁹ See Note 6 regarding non-zero-sum research.

⁴⁰ The author uses Bard O’Neill’s definition for insurgency, “a struggle between a nonruling group and the ruling authorities in which the nonruling group consciously uses political resources and violence to destroy, reformulate, or sustain the basis of legitimacy of one or more aspects of politics.” O’Neill, p 13.

⁴¹ Clausewitz distinguished absolute (theoretical) war from real war. The idea that insurgency can most closely approximate Clausewitz’ notion of absolute war because it may directly involve all of society as participants came from informal discussions with Dr. Jon Sumida, who currently holds the Major General Matthew C. Horner Chair of Military Theory at the USMC Marine Corps University. For more, read Clausewitz, pp 75-89, 577-84.

⁴² The increasing *totality* of war should not be mistaken for the concept of *total war*. *Total war* refers to the mobilization of a nation’s society in order to contribute to the war effort. War’s increasing totality refers to a more fundamental involvement of society in the execution of war, not merely in its preparation. Concept of *total war* researched online at Wikipedia by accessing at http://en.wikipedia.org/wiki/Total_war.

⁴³ The possession of weapons of mass destruction by transnational terrorist organizations presents the United States with one of its most lethal threats to national security today.

⁴⁴ O’Neill’s chapter on government response distills the general requirements of an effective counterinsurgency. Among the most important points, he emphasizes that insurgency is a political and military phenomenon. He also stresses the need to approach the counterinsurgent strategy in a holistic manner. O’Neill, pp 125-54.

⁴⁵ Take the following quote from the National Security Strategy of 2002, “the great strength of this nation must be used to promote a balance of power that supports freedom.” U.S. national interests favor domestic security and a favorable world order based upon global economic prosperity and international recognition of basic human rights. Any government organization which defines its nature on the ability to generate destruction fails to fully support national interests. Office of the President of the United States of America, “The National Security Strategy of the United States of America,” (Washington, DC: GPO, September, 2002), p 1. Download from the White House website at <http://www.whitehouse.gov/nsc/nss.pdf>.

⁴⁶ One of the most glaring examples of this mentality is in the use of phases to describe a methodology for approaching warfighting. Since major combat operations (Phases II & III) precede stabilization, reconstruction, and counterinsurgent operations (Phase IV), military planners fail to recognize the necessity to conduct “Phase II & III” operations with an eye to setting conditions for Phase IV.

⁴⁷ The phrase “political intercourse” is borrowed from Clausewitz who wrote, “that war is not merely an act of policy but a true political instrument, a continuation of political intercourse, carried on with other means.” Clausewitz, p 87. The American experience in Vietnam presents an excellent example of how combat victory may not relate directly to winning a war. When US Army Colonel Harry Summers returned to Vietnam as part of a military negotiations team in 1974, he remarked to a Vietnamese counterpart, “You know, you never beat us on the battlefield.” To which his counterpart replied, “That may be so, but it is also irrelevant.” David Zabecki, “A Tribute to Colonel Harry G. Summers,” April 2000, at www.clausewitz.com/CWZHOME/SummersObitText.htm.

⁴⁸ Definitions for *persuasion*, *coercion*, *compellence*, and *deterrence* are derived from David E. Johnson, Karl P. Mueller, and William H. Taft V, Conventional Coercion Across the Spectrum of Conventional Operations: the Utility of U.S. Military Forces in the Emerging Security Environment, MR-1494-A, Santa Monica, CA: The Rand Corp., 2002. Download from Rand website at <http://www.rand.org/publications/MR/MR1494/>. Definitions for

sincerity and *deception* come from American Heritage Dictionary, accessed online under “sincerity” and “contact” respectively.

⁴⁹ Once a person or group comprehends and accepts the idea(s), the need to continue persuading evaporates until new ideas emerge which challenge the existing understanding.

⁵⁰ This comment refers to Newton’s 3rd Law of Motion (Law of Reciprocal Actions) which is commonly paraphrased that “for every action, there is an equal and opposite reaction.” A brief summary of Newton’s Laws of Motion can be found at Wikipedia and accessed online at http://en.wikipedia.org/wiki/Laws_of_Motion.

⁵¹ Bard O’Neill captures the temporary and potentially disastrous consequences of coercion as a means of influence. While it may shape individual and group behaviors, it consumes effort to maintain and legitimizes resistance. O’Neill, pp 84-5.

⁵² LtCol David P. Calaveri, The Law of War: Can 20th – Century Standards Apply to the Global War on Terrorism?, Global War on Terrorism Occasional Paper 9, (Ft. Leavenworth, KS: Combat Studies Institute Press, 2005), pp 13-21. Download from CSI website at http://cgsc.leavenworth.army.mil/carl/download/csipubs/cavaleri_law.pdf.

⁵³ The Continuum of Contact is the author’s creation. The author wishes to express his gratitude to nine of the other students attending the US Marine Corps School of Advanced Warfighting (SAW) over the course of the 2005-2006 academic year – Daniel Yaroslaski, Thomas Savage, Stephen Van Riper, Trent Scott, Eric Schaefer, Michael Prosser, Henry Lutz, Terry Johnson, and Kurt Ebaugh. These nine students contributed significantly to the evolution of the author’s *Contact* concept.

⁵⁴ The author distinguishes *indigenous* societies from *international* societies in order to emphasize the point that military actions in one country or region will have consequences in other countries or regions.

⁵⁵ Matt Ridley states that “trust is as vital a form of social capital as money is a form of actual capital.” The author modifies this concept by referring to trust as a form of moral capital. Ridley, p 250.

⁵⁶ Tempo is central to maneuver warfare. The objective is to increase the pace of one’s own operations (compressing time), while simultaneously impeding an adversary’s pace of operations (expanding time). Time and friction are manipulated in order to create a difference in relative tempo which generates confusion in the adversary’s mind, cultivates the perception of one’s own invulnerability, ultimately feeding a growing sense-of-isolation that disintegrates cohesion and finally compels him to submit. Ironically, while operational tempo looks to compress own time and expand adversary’s, social tempo looks to do the opposite. Boyd, “Patterns of Conflict,” slides 174-8 & 184-5.

⁵⁷ The best example of this holistic appreciation relates to the current emphasis on military Lines of Operation and Full-spectrum Operations. Lines of Operation refer to a range of distinct military and non-military endeavors that encourage a broader understanding of the political, economic, and social dimensions that directly and indirectly impact mission accomplishment. For example, MajGen Peter Chiarelli used the following lines of operation to guide the multidimensional operations within his area of operations in Baghdad: *combat operations, train and employ security forces, essential services, promote governance, and economic pluralism*. One sees that the traditional military focus – combat operations – becomes just one of five distinctly different types of military operations. For more, read MajGen Peter W. Chiarelli and Major Patrick R. Michaelis, “Winning the Peace: the Requirement for Full-Spectrum Operations,” in Military Review, Vol. 82, No. 4, (Ft. Leavenworth, KS: U.S. Army Combined Arms Center, July-August 2005), pp 4-17.

⁵⁸ MCDP-1, p 73.

⁵⁹ The author takes issue with current efforts to promote Network-Centric Warfare as a new warfighting philosophy because it is grounded in emerging technology which fails to maintain focus on the fact that war is a matter of human psychology. Technology is an enabler, but should not be viewed as an end in itself.

⁶⁰ The increasing totality of war as witnessed in actions such as Bosnia, Rwanda, and Darfur, highlight the need to proactively address PTSD issues early. For more information on PTSD research and case studies, read The Human Face of Warfare: Killing, Fear, & Chaos in Battle, ed. by Michael Evans and Alan Ryan, (New South Wales, Australia: Allen & Unwin, 2001). Another excellent source to understand the psychology of war on the individual is J. Glenn Gray, The Warriors: Reflections on Men in Battle, (Lincoln, NE: University of Nebraska Press, 1959).

⁶¹ US Joint Forces Command is currently working on a number of interagency initiatives such as the Joint Interagency Coordination Group (JIACG) and the Multinational Interagency Group (MIG). While both concepts mark a step forward in facilitating non-military interdependence, their purpose is purely advisory to theater staffs. The most current examples of non-military interdependence at the tactical level are the Provincial Reconstruction Teams (PRT) in Afghanistan as part of Operation ENDURING FREEDOM. For more details regarding USJFCOM interagency initiatives, visit <http://www.jfcom.mil/index.htm>. For an assessment of PRTs to date, read US Agency

for International Development (USAID), “Provincial Reconstruction Teams,” July, 2005. Accessed at http://www.usaid.gov/locations/asia_near_east/afghanistan/PRT_7-18-05_alj.pdf.

⁶² A holistic appreciation of initiatives such as *information operations*, *strategic communications*, *lines of operation*, *full-spectrum operations*, *cultural awareness*, and *interagency operations* demonstrate that warfighting can no longer be regarded as a diametric, zero-sum competition against a monolithic enemy who is defeated in combat.